Introducing Emergency Management to Health Systems

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III. Summary

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Abstract

The recent changes to the Joint Commission Environment of Care standard 1.4 (emergency management (EM)) point health systems towards a new way of orienting management plans around not only preparedness but all four phases of EM. Since the intent behind the changes was to promote consistency and linkage to partner organizations, a universal framework for organizing management plans is explained. Because of its unique contingency support requirements, the Veterans Health Administration (VHA) has been working on a recommended approach that meets the needs of both large and small health systems.

Objectives:

1. Explain what the standard NFPA 1600 provides EM programs.

2. Describe several EM concepts that relate to the new requirements of the Joint Commission EM standards 1.4.

3. Discuss why the EM program coordinator's role is important.

4. Define three important assumptions about human behavior in crisis,

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Introduction

The purpose of this paper is to explain several key concepts and ingredients that have guided EM programs for more than twenty years and now are directly relevant to the Joint Commission's emergency management (EM) standards 1.4. The problem facing health system disaster planners is how to organize their management plans to meet these new requirements while at the same time promoting the intended level of linkage with external EM partners that is needed to produce an effective response to disasters. One solution to this problem may lie in the structure of another recently adopted EM standard.

An Overall Context

The National Fire Protection Association (NFPA), through its Standard 1600, Recommended Practice for Disaster/Emergency Management provides a useful overall structure into which the health system specific requirements of the Joint Commission can be placed.

Figure 1: Structure of NFPA 1600

Chapter 1.	**Introduction.**
	Scope.
	Purpose
Chapter 2.	**Program Management**
	Policy
	Program Coordinator
	Program Committee
	Program Assessment
Chapter 3.	**Program Elements**
	General
	Laws and Authorities
	Hazard Identification & Risk Assessment
	Hazard Management
	Resource Management
	Planning
	Direction, Control & Coordination
	Communications & Warning
	Operations & Procedures
	Logistics & Facilities
	Training
	Exercises, Evaluations & Corrective Actions
	Public Education & Information
	Finance & Administration

Key EM Concepts

Comprehensive Emergency Management

The cornerstone of the Federal Emergency Management Agency's (FEMA) orientation was a concept called Comprehensive Emergency Management (CEM) that called for an integrated approach to organize the various emergency programs and activities. These activities are organized into a chronology of four phases comprising the "life cycle" of EM (e.g. these four phases are visualized as a circle, with recovery leading back to mitigation, and so on).

Figure 2: Some activities that relate to the four phases of Comprehensive Emergency Management

Phase	Activities
Mitigation	Building Codes Land Use Management Research Hazards Analysis Public Education
Preparedness	Warning & Communications Systems Resource Identification Emergency Plans Mutual-Aid Agreements Training & Exercises
Response	Alerting & Warning Shelter/Evacuation Search and Rescue Emergency Medical Services Mass Care
Recovery	Damage Assessment Crisis Counseling Debris Clearance Disaster Assistance Re-building[1]

Integrated Emergency Management System

CEM is implemented through the Integrated Emergency Management System (IEMS). IEMS provides three important things: a process for the program development (see Figure 3); a philosophy of inclusiveness for all disaster-relevant groups/resources; and, a planning orientation of organizing these groups and resources under functions generic to all hazards (see Figure 4) .

Figure 3: IEMS program development process

- Assessment of the status of the current program through an audit and the establishment of goals and priorities.
- An appraisal of hazards and their primary and secondary effects (needs assessment).
- Mitigation activities designed to reduce the effects of those hazards
- The development of capabilities (preparedness activities of staff education, planning, training, exercises, purchase of equipment/ supplies)
- Emergency operations (response and recovery).
- Identification of shortfalls in capability (evaluation activities including, after-action critiques from exercises or actual events providing the feedback loop to unmet preparedness issues)
- A multi-year development plan to guide the overall mitigation, preparedness, response and recovery activities. The multi-year development plan is reviewed annually and its annual work increment guided by goals, objectives and strategies.

Figure 4: IEMS plan format

Basic Plan
(Overall management & coordination)

Emergency Support Functions (functional annexes)
Transportation
Communications
Public Works & Engineering
Firefighting
Information and Planning
Mass Care
Resource Support
Health & Medical Services
Urban Search and Rescue
Hazardous Materials
Food
Energy

Incident Command System

The Joint Commission's new standards are suggesting the use of ICS through this statement:

The plan identifies

o. alternate roles and responsibilities of personnel during emergencies, including who they report to within a command structure that is consistent with that used by the local community.

The Incident Command System (ICS) is that system developed in the early 1970's under a Congressionally funded effort to improve inter-agency coordination during major wildland firefighting efforts in California. The project was called *FIRESCOPE* and it produced the National Interagency Incident Management System or NIIMS. The five sub-systems of NIIMS are: the ICS; training that is standardized and supports the effective operation of NIIMS; a qualifications and certification system that provides personnel across the nation meeting standard training, experience and physical requirements to fill specific positions within the ICS; publications management, and supporting technologies.

NIIMS remains the national operating system of Federal, State and local wildland firefighting agencies. It is widely referred to as the "generic ICS" and, as such, can be applied to all risks. This system is generally the structure used to implement emergency management plans at the local, State and Federal levels. Thus, it serves as a fair representation of what JCAHO is referring to as a community's command system.

Hospital Emergency Incident Command System (HEICS)

The ICS created by NIIMS has been applied to many disciplines (e.g. public works, law enforcement, and hospitals). The HEICS was developed also in southern California (San Mateo county health system) and its appeal spread throughout the State and Nation. Today, HEICS is the single most recognized model for applying ICS to health care facilities.

HEICS is consistent with ICS and so, should be generally consistent with the command system used in the community. The important point is that whatever ICS model is used, it must contain the eight components and five management functions of ICS:

Figure 5: Generic Components and Management Functions of ICS

Components	Management Functions
• Common terminology	Management
• Modular organization	Plans
• Integrated communications	Logistics
• Unified management structure	Finance/Administration
• Consolidated action plans	Operations
• Manageable span-of-control	
• Pre-designated incident facilities	
• Comprehensive resource management[2]	

Standardized Emergency Management System

In the 1990's, because of inter-agency coordination problems "above the scene," the State of California developed the Standardized Emergency Management System (SEMS). SEMS is important because it:

- Provides an easy way of translating plans into management functions (see Figure 6)
- Applies ICS components and management functions to Emergency Operations Centers (EOCs) at the local government, county government, mutual-aid region, and State levels, thus creating a common system from the scene(s) to the State level.[3]

Figure 6: Placing Joint Commission requirements into ICS/SEMS management functions

Joint Commission Requirements	*Standard Emergency Management Functions*				
	Management	Operations	Planning	Logistics	Finance & Admin
Alerting & Warning		○			
Scheduling of Services	●	○	○	○	○
Patient Information			○		
Shelter/Temporary Housing				○	
Stress Debriefing		○		●	
Critical Supplies				●	○
Security		○			
Media Relations	○				
Alternative Care Site(s)		●	○	○	○
Evacuation of Patients	○	●	○	○	
Interfacility Coordination		○			
Patient Transportation				○	
Patient Tracking			●		
Re-establishing Operations	●	○	○	○	○
Utility Systems				○	
Communications Systems				○	
Decontamination		○			

● Lead ○ Support

Another Key, the EM Program Coordinator

The goal of emergency management is to create and maintain an effective organization to prevent, prepare for, respond to and recover from major threats to lives and livelihoods. A fundamental assumption is that plans alone are not effective unless they are supported by people and a process brought together by good management skills.[4]

The EM program coordinator's task is to use a variety of resources, techniques and skills to create a team of agencies and organizations who work through a process of steps (see IEMS) that reduces the probability and impact of extreme events – and should a disaster occur, brings about a quick restoration of routines. [5] This task requires the roles of

coordinator, facilitator and compromiser – not autocrat, since he/she has no control over the variety of individuals, organizations and levels of government whom are involved in EM.

One Final Ingredient, Understanding How People Behave

Disaster researchers have made incredible contributions to the field of emergency management. The following excerpt from an article by Russell Dynes is a summary of what to expect from people in crisis.

Continuity - Emergency planning is, in effect, a guide for behavior appropriate to certain situations. *One key assumption is that the best predictor of behavior during emergencies is that behavior prior to them.* Planning should support the concept that social units (families, neighborhoods, plants, communities, etc.) are decision-making/problem-solving units in normal times and this does not change during emergencies. The problem-solving model assumes the resources from the pre-emergency community are relevant and sufficient. And that the conditions of the emergency period will not be characterized by social chaos but by the continuity of effort and structure.

Coordination – *Another key assumption is that effective planning requires knowledge about the pre-emergency organizational domains*. Instead of creating "emergency-specific" authority, pre-existing authority serves as the base, and is enhanced by getting all of the players together in common planning and rehearsal activities, personal contact, liaison activities, establishing shared facilities, etc. If this is built on the base of pre-existing behavior - no detailed descriptions are necessary. The core of planning should be focused on mechanisms, techniques and facilities that promote inter-organizational coordination and common decision-making.

Cooperation – *The third key assumption is that emergencies do not create loss of personnel, but rather the reverse occurs, you have more manpower because of emergent behavior*. Problems lead to emergent phenomena. All problems cannot be solved through existing organizations, so planning needs to consider the utilization of volunteers. A key element of planning is to develop mechanisms for integrating emergent and convergent activities that are necessary to solve the problem. Improvisation is good and natural and is desirable as an approach to problem solving.

The purpose of EM is to reduce uncertainty or ambiguity of the roles and responsibilities of those who will respond to emergencies. EM strives to improve the ability of individuals and groups to solve problems. To enable this, a social process is created which can collect information, allocate resources, determine priorities among critical needs and apply available resources most effectively. The pre-existing authority and autonomy of each participating individual, agency or organization is valued and maintained. Collective planning and rehearsal activities, personal contact, liaison, and establishing joint facilities promote inter-organizational coordination, common decision-making, and the ability to improvise.

Emergency management, then, is part improvisation and part preparedness. Without improvisation, it loses flexibility in the face of changing conditions. Without preparedness, it loses some clarity and precision. Preparedness means to organize a response prior to an event; Improvisation means to organize a response during an event. Planning and preparedness improve the ability to improvise. [6]

[1] Godschalk, Disaster Mitigation and Hazards Management, Emergency Management: Principles and Practices for Local Government, ICMA, pp. 136.

18 National Inter-agency Incident Management System, Incident Management System, Operational System Description, Fire Protection Publications, Oklahoma State University, p. 7.

19 Governor's Office of Emergency Services, State of California, Standardized Emergency Management System, Part II: Planning and Developing SEMS, B. Local Government, p. 5, 1994.

[4] Ibid, Program Development.

[5] Hoetmer, Introduction, Emergency Management: Principles and Practices for Local Government, International City Managers Association, Washington, D.C., 1991, p. xx

[6] Dynes, Community Emergency Planning: False Assumptions and Inappropriate Analogies, International Journal of Mass Emergenci and Disasters, p. 153